(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property **Organization**

International Bureau





(43) International Publication Date 18 March 2004 (18.03.2004)

PCT

(10) International Publication Number WO 2004/023151 A1

(51) International Patent Classification7: G01R 19/155, 19/165

(21) International Application Number:

PCT/PL2002/000089

(22) International Filing Date:

18 November 2002 (18.11.2002)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: P.355796

30 August 2002 (30.08.2002)

(71) Applicant (for all designated States except US): ABB SP. ZO. O. [PL/PL]; ul. Bitwy Warszawskiej 1920r, nr 18, PL-02-266 Warszawa (PL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): CZYZEWSKI, Jan [PL/PL]; Ul. Bodziszkowa 9, PL-30-223 Krakow (PL). PIASECKI, Wojciech [PL/PL]; Ul. Friedleina 28A/28, PL-30-611 Krakow (PL). STRÜMPLER, Ralf [CH/CH]; Oberriedenstrasse 35 B, CH-5412 Gebenstorf

(CH). GLATZ-REICHENBACH, Joachim [CH/CH]; Kirchweg 4, CH-8274 Tägerwilen (CH).

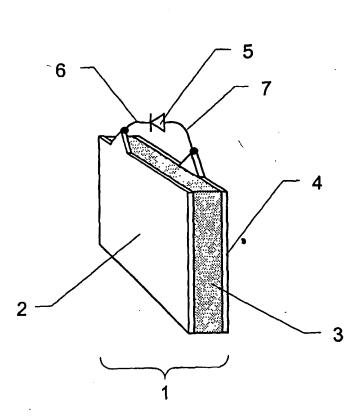
- (74) Agent: CHOCHOROWSKA-WINIARSKA, Krystyna; ABB Corporate Research, ul. Starowishna 13A, PL-31-038 Kraków (PL).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW. MX, MZ, NO, NZ, OM, PH, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

[Continued on next page]

(54) Title: PASSIVE INDICATOR OF VOLTAGE PRESENCE



(57) Abstract: The subject of the invention is a passive indicator of voltage presence used to indicate voltage in electrical conductors, electrically powered devices, power distribution devices and transmission lines of high, medium and low voltage. The indicator according to the invention is characterized in that it has form of a multilayer plate comprising two electrically conductive layers (2, 4) and an intermediate layer (3) of a structure manifesting electrooptical properties, located between them, wherein the intermediate layer is a display element of the indicator, while the conductive layers are electrodes of that display element and they are electrically connected by means of a diode (5), and one of the conductive layers is at least partially transparent. In one of variant embodiments of the indicator according to the invention, at least one of the conductive layers is divided into smaller conductive surfaces, separated from one another and being not in contact with each other, which adhere to the intermediate layer and are electrically connected with the other conductive layer or with its individual surfaces by means of diodes.

WO 2004/023151 A1